

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
19 May 2005 (19.05.2005)

PCT

(10) International Publication Number  
**WO 2005/044189 A2**

- (51) International Patent Classification<sup>7</sup>: **A61K**
- (21) International Application Number:  
PCT/US2004/035541
- (22) International Filing Date: 27 October 2004 (27.10.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/515,174 28 October 2003 (28.10.2003) US
- (71) Applicant (for all designated States except US): **EMORY UNIVERSITY** [US/US]; Office of Technology Transfer, 1784 North Decatur Road, Suite 130, Atlanta, GA 30322 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **O'NEILL, W., Charles** [US/US]; 113 Kirk Crossing, Decatur, GA 30030 (US). **LOMASHVILI, Koba** [GE/US]; 1507 N. Decatur Road, Apt. #4, Atlanta, GA 30307 (US).
- (74) Agent: **LEE, Cynthia, J.**; Thomas, Kayden, Horstemeyer & Risley, LLP., 100 Galleria Parkway, NW, Suite 1750, Atlanta, GA 30339-5948 (US).

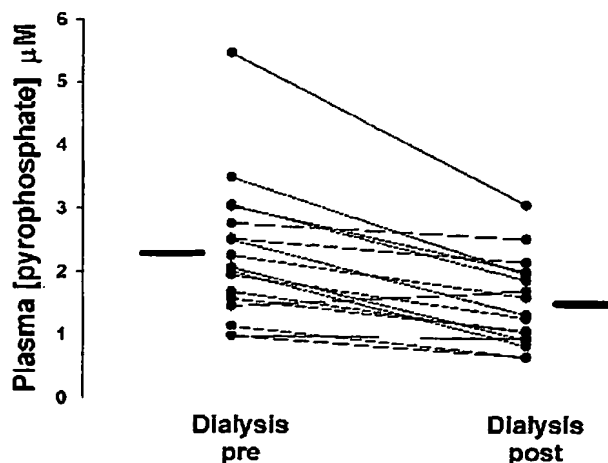
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:  
— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DIALYSATES AND METHODS AND SYSTEMS RELATED THERETO



(57) Abstract: Compositions, systems, and methods of treating conditions such as vascular calcification conditions are disclosed. A representative method includes administering to an individual in need of treatment an effective amount of at least one effector agent. Another method includes prophylactically treating vascular calcification or vascular calcification-related conditions by administering to an individual in need of treatment an effective amount of at least one effector agent. Still another method includes treating vascular calcification by administering an effective amount of at least one effector agent to an individual in need of treatment via hemodialysis.